IF

Noder the Pa	nonverk Reduction Act of 100	F	U.S.	Patent and T	radomark Office: I	PTO/SB/21 (09-C through 07/31/2006. OMB 0651-00 U.S. DEPARTMENT OF COMMERC		
TO TO	DE WORK NEGOCION ACTOL 195	s. no person	Application Number	10/765,430		displays a valid OMB control numb		
1 2006 [™] \ TR	ANSMITTAL		Filing Date	January 26	5, 2004			
<i>u</i> ,/	FORM	First Named Inventor	Guillermo	Guillermo J. Tearney				
L DECK OF			Art Unit	3737				
TAAMA (to be uped for	all assurance de une esta de la		Examiner Name	To be assi	Ssigned			
(to be used for all correspondence after initial filing) Total Number of Pages in This Submission			Attorney Docket Number	_	36140/U\$ - 475387-00020			
	- agos in this cashinasion	ENC	LOSUBES (S)					
		ENC	LOSURES (Check a	ll that apply		Allowance Communication to To		
Fee Tran	smittal Form		Drawing(s)			movembo communication to the		
F-	ee Attached		Licensing-related Papers	. /		al Communication to Board peals and Interferences		
Amendme	ent/Reply		Petition		Appea	al Communication to TC al Notice, Brief, Reply Brief)		
1	ter Final		Petition to Convert to a			etary Information		
			Provisional Application Power of Attorney, Revocati	on				
	fidavits/declaration(s)	IH.	Change of Correspondence	Address	= Oh	s Letter Enclosure(s) (please Identify		
Extension of Time Request			Terminal Disclaimer		below):		
Express Abandonment Request			Request for Refund PT			PTO-1449 form with 31 references and Return Receipt Postcard		
Information			CD, Number of CD(s)			sipt Postcard		
Information Disclosure Statement		اا	Landscape Table on CD					
Certified 6	Copy of Priority	Rema			<u> </u>			
Documen		Itema	ing					
	Missing Parts/							
	e Application eply to Missing Parts	}						
l Li ur	nder 37 CFR 1.52 or 1.53							
<u>i</u>						•		
	SIGN	ATURE (OF APPLICANT, ATTO	ORNEY, C	R AGENT			
Firm Name	Dorsey & Whitney, L.L.P					• •		
Signature		-		_				
Printed name	Gary Abelev, Esq.	 .	· · · · · · · · · · · · · · · · · · ·					
Date	Date February 17, 2006			Reg. No.	eg. No. Reg. No. 40,479			
sufficient postage	at this correspondence is as first class mail in an e	being facsi	CATE OF TRANSMISS mile transmitted to the USP* dressed to: Commissioner for	TO or depos	ited with the Ur	nited States Postal Service with Alexandria, VA 22313-1450 on		
the date shown be Signature	elow:	_						
Jugualde		-			41			
	4				•			

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

: Guillermo J. Tearney et al.

Serial No.

10/765,430

Filed

January 26, 2004

Entitled

SYSTEM AND METHOD FOR IDENTIFYING TISSUE USING

LOW-COHERENCE INTERFEROMETRY

Group Art Unit

3737

Examiner

To be assigned

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 I hereby certify that this document is being sent via First Class U. S. mail addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on this day of February 17, 2006.

(Signature)

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), applicants bring to the attention of the Examiner the documents listed on the attached Form PTO 1449, and respectfully request that the listed documents be considered by the Examiner and made of record in the above-captioned application. Copies of the United States patent references listed on the Form PTO-1449 are not enclosed, but the PCT/foreign/non-patent references are enclosed.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed documents are material or constitute "prior art." If the Examiner applies the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute "prior art" under

036140/US - 475387-00020 PATENT

United States law, applicants reserve the right to present to the Office the relevant facts and law

regarding the appropriate status of the documents.

Applicants further reserve the right to take appropriate action to establish the

patentability of the disclosed invention over the listed documents, should the documents be

applied against the claims of the present application.

This submission is being filed before any action by the U.S. Patent and

Trademark Office on the merits. Therefore, applicants do not believe that any fee is due in

connection with the submission of this paper. However, if any fee is due, or if any overpayment

has been made, the Commissioner is authorized to charge any such fee or credit any

overpayment, to our Deposit Account No. 50-2054.

Respectfully submitted,

DORSEY & WHITNEY, LLP

Gary Abelev

PTO Reg. No. 40,479

Attorneys for Applicants

(212) 415-9371

4848-5070-3104\1

2

Form PTO-1449 U.S. Department of Commerce (REV. 2-82) Patent and Trademark Office

Atty. Docket No. 036140/US - 475387-00020 Serial No. 10/765,430

INFORMATION DISCLOSURE STATEMENT

BY APPLICANT (We several sheets if necessary) Applicant(s) Guillermo J. Tearney

Filing Date January 26, 2004

Group 3737

FER 9 1 2006

Exam. Init.				Docun	nent N	0.			Date	Name	Cla	Subclass	Filing Date if Appropriate
		5	4	9	1	5	2	4	February 13, 1996	Hellmuth et al.	33	<u> </u>	
		6	6	8	0	7	8	0	January 20, 2004	Fee			
	2003	0	1	3	5	1.	0	1	July 17, 2003	Webler			
		6	9	8	0	2	9	9	December 27, 2005	de Boer			
		6	1	6	6	3	7	3	December 26, 2000	Mao .			
		6	4	6	9	8	4	6	October 22, 2002	Ebizuka et al.			
		5	6	2	-3	3	3	6	April 22, 1997	Raab et al.			
	-	5	2	6 ·	2	6	4	4	November 16, 1993	Maguire			
-		5	1	2	7	7	3	0	July 7, 1992	Brelje et al.			
		5	2	4	8	8	7	6	September 28, 1993	Kerstens et al.			
		5	3	0	4	8	1	0	April 19, 1994	Amos	i i		
		5	4	5	0	2	0	3	September 12, 1995	Penkethman	1 -	!	
		5	4	5	9	3	2	5	October 17, 1995	Hueton et al.			
		5	5	2	6	3	3	8	June 11, 1996	Hasman et al.	·		†
		5	6	0	0	4	8	6	February 4, 1997	Gal et al.		-	
		5	6	9	8	3	9	7	December 16, 1997	Zarling et al.		 	<u> </u>
		5	7	8	5	6	5	1	July 28, 1998	Kuhn et al.	_	 	
		5	8	8	7	0	0	9	March 23, 1999	Mandella et al.		ļ	
		5	0	4	5	9	3	6	September 3, 1991	Lobb et al.		-	
		5	2	9	1	8	8	5	March 8, 1994	Taniji et al.		 	
		5	2	9	3	8	7	3	March 15, 1994	Fang	- -	1	
	-	5	0	6	5	3	3	1	November 1991	Vachon et al.	+		
	2001	0	0	4	7	1	3	7	November 2001	Moreno et al.	_		
	2002	0	0	1	6	5	3	3	February 7, 2002	Marchitto et al.			
		6	8	1	6	7	4	3	November 9, 2004	Moreno et al.			
		6	3	2	4	4	1	9	November 27, 2001	Guzelsu et al.			

Examiner

Date Considered

Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 2 of 4 Form PTO-1449 U.S. Department of Commerce Atty. Docket No. Serial No. (REV. 2-82) Patent and Trademark Office 036140/US - 475387-00020 10/765,430 INFORMATION DISCLOSURE STATEMENT BY APPLICANT Applicant(s) (Use several sheets if necessary) Guillermo J. Tearney Filing Date Group January 26, 2004 3737 May 13, 2003 Izatt et al. 6 8 1 9 9 5 6 March 6, 2001 Dunne, Shane 7 3 2 April 7, 1998 5 6 Lemelson, Jerome FOREIGN PATENT DOCUMENT **Translator** Document No. Date Country Class SubClass Yes No 0 5 December 9, 2004 WIPO OTHER DOCUMENTS (including Author, Title Date, Pertinent Pages, Etc.) Marc Nikles et al., "Brillouin gain spectrum characterization in single-mode optical fibers", Journal of Lightwave Technology 1997, 15 (10): 1842-1851. Tsuvoshi Sonehara et al., "Forced Brillouin Spectroscopy Using Frequency-Tunable Continuous-Wave Lasers", Physical Review Letters 1995, 75 (23): 4234-4237. Hajime Tanaka et al., "New Method of Superheterodyne Light Beating Spectroscopy for Brillouin-Scattering Using Frequency-Tunable Lasers", Physical Review Letters 1995, 74 (9): 1609-1612. Webb RH et al. "Confocal Scanning Laser Ophthalmoscope", Applied Optics 1987, 26 (8): 1492-1499. Andreas Zumbusch et al. "Three-dimensional vibrational imaging by coherent anti-Stokes Raman scattering", Physical Review Letters 1999, 82 (20): 4142-4145. Katrin Kneipp et al., "Single molecule detection using surface-enhanced Raman scattering (SERS)", Physical Review Letters 1997, 78 (9): 1667-1670. K.J. Koski et al., "Brillouin imaging" Applied Physics Letters 87, 2005. Boas et al., "Diffusing temporal light correlation for burn diagnosis", SPIE, 1999, 2979:468-477. Examiner Date Considered

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 3 of 4 Form PTO-1449 U.S. Department of Commerce Atty. Docket No. Serial No. (REV. 2-82) Patent and Trademark Office 036140/US - 475387-00020 10/765,430 INFORMATION DISCLOSURE STATEMENT BY APPLICANT Applicant(s) (Use several sheets if necessary) Guillermo J. Tearney Filing Date Group January 26, 2004 3737 David J. Briers, "Speckle fluctuations and biomedical optics: implications and applications", Optical Engineering, 1993, 32(2):277-283. Clark et al., "Tracking Speckle Patterns with Optical Correlation", SPIE, 1992, 1772:77-87. Facchini et al., "An endoscopic system for DSPI", Optik, 1993, 95(1):27-30. Hrabovsky, M., "Theory of speckle dispacement and decorrelation: application in mechanics", SPIE, 1998, 3479:345-354. Sean J. Kirkpatrick et al., "Micromechanical behavior of cortical bone as inferred from laser speckle data", Journal of Biomedical Materials Research, 1998, 39(3):373-379. Sean J. Kirkpatrick et al., "Laser speckle microstrain measurements in vascular tissue", SPIE, 1999, 3598:121-129. Loree et al., "Mechanical Properties of Model Atherosclerotic Lesion Lipid Pools", Arteriosclerosis and Thrombosis, 1994, 14(2):230-234. Podbielska, H. "Interferometric Methods and Biomedical Research", SPIE, 1999, 2732:134-141. Richards-Kortum et al., "Spectral diagnosis of atherosclerosis using an optical fiber laser catheter", American Heart Journal, 1989, 118(2):381-391. Ruth, B. "blood flow determination by the laser speckle method", Int J Microcirc: Clin Exp, 1990, 9:21-45. Shapo et al., "Intravascular strain imaging: Experiments on an Inhomogeneous Phantom", IEEE Ultrasonics Symposium 1996, 2:1177-1180. Shapo et al., "Ultrasonic displacement and strain imaging of coronary arteries with a catheter array", IEEE Ultrasonics Symposium 1995, 2:1511-1514. Thompson et al., "Imaging in scattering media by use of laser speckle", Opt. Soc. Am. A., 1997, 14(9):2269-2277. Examiner Date Considered

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

, n , b	Page 4 of 4							
Form PTO-1449 U.S. Department of Commerce (REV. 2-82) Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT	Atty. Docket No. 036140/US – 475387-00020	Serial No. 10/765,430						
BY APPLICANT (Use several sheets if necessary)	Applicant(s) Guillermo J. Tearney							
·	Filing Date January 26, 2004	Group 3737						
Thompson et al., "Diffusive media cha 36(16):3726-3734.	aracterization with laser speckle", A	pplied Optics, 1997,						
Tuchin, Valery V., "Coherent Optical Dynamics," Journal of Biomedical Op	Tuchin, Valery V., "Coherent Optical Techniques for the Analysis of Tissue Structure and Dynamics," <u>Journal of Biomedical Optics</u> , 1999, 4(1):106-124.							
M. Wussling et al., "Laser diffraction Biochim, Acta, 1986, 45(1/2):S 23-S	M. Wussling et al., "Laser diffraction and speckling studies in skeletal and heart muscle", Biomed, Biochim, Acta, 1986, 45(1/2):S 23- S 27.							
T. Yoshimura et al., "Statistical proper 3(7):1032-1054	T. Yoshimura et al., "Statistical properties of dynamic speckles", J. Opt. Soc. Am A. 1986, 3(7):1032-1054							
Zimnyakov et al., "Spatial speckle cor Applied Optics 1997, 36(22): 5594-56	Zimnyakov et al., "Spatial speckle correlometry in applications to tissue structure monitoring", Applied Optics 1997, 36(22): 5594-5607.							
Zimnyakov et al., "A study of statistic to the diagnosis of structural changes in 753.	Zimnyakov et al., "A study of statistical properties of partially developed speckle fields as applied to the diagnosis of structural changes in human skin", Optics and Spectroscopy, 1994, 76(5): 747-753.							
monitoring", <u>SPIE</u> 1999, 2981:172-18	Zimnyakov et al., "Speckle patterns polarization analysis as an approach to turbid tissue structure monitoring", <u>SPIE</u> 1999, 2981:172-180.							
Ramasamy Manoharan et al., "Biocher using FT-IR microspectroscopy", Athe	mical analysis and mapping of ather erosclerosis, May 1993, 181-1930.	rosclerotic human artery						
N.V. Salunke et al., "Biomechanics of Engineering 1997, 25(3):243-285.	Atherosclerotic Plaque" Critical Re	eviews TM in Biomedical						

Examiner Date Considered

4827-3403-6736\1

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.